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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,967	10/26/2001	Earl D. Cox	01-PAN-04	8713

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EXAMINER	
HIRL, JOSEPH P	

ART UNIT	PAPER NUMBER
2121	8

DATE MAILED: 03/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/032,967	COX, EARL D.	
	Examiner	Art Unit	
	Joseph P. Hirl	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 October 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-36 are pending in this application.

2. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris,* 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, l 45-48; p 2100-9, c 1, l 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

3. Examiner's Opinion:

Para 2 above applies. The disclosure is the classic software implemented data gathering, analysis and prediction process that is anticipated by a plurality of prior art. The prior art of Zager fully anticipates the applicants invention under the perspective of para 2 above.

Specification

4. Page 1, lines 2-11: delete and insert the following:

Five utility patent applications are being filed simultaneously that relate to various aspects of eService management. The five utility applications are entitled "The eService Business Model" (application serial no. not identified), "Framework for eService Management" (application serial no. 10/035,657), "Behavior Experts in eService Management" (application serial no. 10/032,967), "The Uniform Data Model" (application serial no. 10/032,968), " and "Adaptive Feedback Control in eService Management" (application serial no. 10/032,966). The subject matter of each is hereby incorporated by reference into each of the others.

These objections must be corrected.

Claim Objections

5. Claims 4, 5, 21, 22 and 35are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. To one of ordinary skill in the art, establishing if-then rules as done in claim 2 and 19, immediately establishes the functionality of such rules. Claims 4 and 21 that follow respectively, add nothing novel or non obvious. Claims 4 and 21are obvious conditioned on the requirements of claims 2 and 19, respectively. Claims 5 and 22 are not limiting following the same rationale established for claims 4 and 21, respectively.

Claim 35 cannot limit claim 31 since whatever the linkages are, the related topology is axiomatically set.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-16 and 31-36 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The practical application test requires that a useful, concrete and tangible result be accomplished within a tangible embodiment in the technical arts. Claims 1-17 and 31-36 represent abstract methodology not embodied in the technical arts. The consequence is non-statutory.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 1-16 and 31-36 are rejected under 35 USC 112, first paragraph because current case law (and accordingly, the MPEP) require such a rejection if a 101 rejection is given because when Applicant has not in fact disclosed the practical application for

the invention, as a matter of law there is no way Applicant could have disclosed how to practice the undisclosed practical application. This is how the MPEP puts it:

> ("The how to use prong of section 112 **incorporates as a matter of law** the requirement of 35U.S.C. 101 that the specification disclose as a matter of fact a practical utility for the invention.... If the application fails as a matter of fact to satisfy 35 U.S.C. 101, then the application **also fails as a matter of law** to enable one of ordinary skill in the art to use the invention under 35 U.S.C. § 112."); In re Kirk, '376 F.2d 936, 942, 153 USIPQ 48, 53 (CCPA 1967) ("Necessarily, compliance with § 112 requires a description of how to use presently useful inventions, **otherwise an applicant would anomalously be required to teach how to use a useless invention**."). See, MPEP 21107.01 (IV), quoting In re Kirk (emphasis added).

Therefore, claims 1-16 and 31-36 are rejected on this basis.

10. Claims 6 and 23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification is silent on "linguistic qualifying term".

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Zager et al (U.S. Pub 2002/0022952 referred to as **Zager**).

Claims 1, 11, 17

Zager anticipates obtaining said operational information from at least one data provider connected to said infrastructure component, said operational information providing values for a set of variables that are used to define the performance of said infrastructure component (**Zager**, p 0083; Examiner's Note (EN): p 2 above applies); transforming zero or more states, controlled by said behavior expert, according to a set of metric rules, employed by said behavior expert, based on the values of said set of variables (**Zager**, p 0072; p 0092; p0108; p0110; p0118; p 0199-204; EN: p 2 above applies; a software agent is a behavior expert; metric and quantitative are synonymous; state changes occur in the direct graph of faults); and generating zero or more events, indicating the performance of said infrastructure component, according to a set of behavior rules, employed by said behavior expert, based on said states transformed by said transforming (**Zager**, p 0072; p 0092; p0108; p0110; p0118; p 0199-204; p 0151 EN: p 2 above applies; a software agent is a behavior expert; metric and quantitative are synonymous; state changes occur in the direct graph of faults).

Claims 2, 19

Zager anticipates said metric rules includes an if-then statement, relating a set of variables to a set of states, where the if-condition of said if-then statement is expressed as relations between said set of variables and their values and where the actions of said if-then statement describe said set of states to be transformed, when the if condition of

said metric rules is satisfied, and the manner the set of states to be transformed (**Zager**, p 0196 – p 0204; EN: p 2 above applies; if (whatever data) – then (follow path)).

Claims 3, 20

Zager anticipates each of said behavior rules includes an if-then statement, relating a set of states to a set of events, where the if-condition of said if-then statement is expressed with respect to said set of states and the actions of said if-then statement describe the set of events to be generated when the if-condition of said behavior rules is satisfied (**Zager**, p 0196 – p 0204; EN: p 2 above applies; if (whatever data) – then (follow path); each of the three paths is a state).

Claims 4, 21, 29, 30

Zager anticipates if-condition includes at least one of a quantitative condition expressed as at least one relation between a variable and its corresponding quantitative value (**Zager**, p 0196 – p 0199; EN: p 2 above applies; to one of ordinary skill in the art, packet loss rate will be a quantitative condition expressed as packets input, packets output over time t); a qualitative condition expressed as at least one relation between a variable and its corresponding qualitative value (**Zager**, p 0196 – p 0199; EN: p 2 above applies; to one of ordinary skill in the art, condition of managed resources such as network A terminated load to network B); and a combination of quantitative and qualitative condition which includes at least one quantitative condition and at least one qualitative condition (**Zager**, p 0196 – p 0199; EN: p 2 above applies; agent infers the condition of managed resource by retrieving system management metrics from the control blocks of the relevant OS).

Claims 5, 22

Zager anticipates quantitative value includes at least one of a numerical value, a Boolean value, and a string value (**Zager**, p 0199; EN: "system management metrics").

Claims 6, 23

Zager anticipates qualitative value includes at least one of a linguistic qualifying term represented by a fuzzy set (**Zager**, p 0297; EN: p 2 above applies; cardinality relationships are fuzzy and human readable name is linguistic).

Claims 7, 12, 24

Zager anticipates declaring zero or more elements of said behavior expert as public elements so that said elements can be accessed by different behavior experts (**Zager**, p 0286; EN: p 2 above applies; many-to-many); and specifying zero or more different behavior experts as the dependencies of said behavior expert so that the elements declared by said different behavior experts as public elements can be accessed by said behavior expert (**Zager**, p 0286; EN: p 2 above applies; many-to-many).

Claims 8, 13, 25

Zager anticipates said elements include at least one of a state, an event, and a fuzzy set (**Zager**, p 0036).

Claims 9, 14, 26

Zager anticipates forming uniform event representation for said events, generated by said generating, in accordance with a standard format (**Zager**, p 0033);

and posting said uniform event representation of said events in an event pool (**Zager**, p 0047; EN: p 2 above applies; a database is an event pool).

Claim 10

Zager anticipates at least one data provider includes at least one of a service, an operating system, an application, an external transaction, a network, and a behavior expert (**Zager**, p 0042).

Claims 15, 27

Zager anticipates standard format includes a uniform data model (**Zager**, p 0034; EN: p 2 above applies; a flexible model will uniformly represent the system).

Claims 16, 28

Zager anticipates event pool includes a blackboard (**Zager**, p 0031; EN: p 2 above applies; to one of ordinary skill in the art, the blackboard concept is synonymous with commonality to include "a solution").

Claim 18

Zager anticipates at least one data provider includes at least one of a service, an operating system, an application, an external transaction, a network, and a behavior expert (**Zager**, p 0042; EN: p 2 above applies; EN: Fig. 1 represents an operating system, an application, an external transaction, a network, and agent software providing data).

Claim 31

Zager anticipates a plurality of behavior experts wherein each behavior expert includes an array of one or more internal states which are assigned values by said

behavior expert such that different internal states contain information collected at different times (**Zager**, p 0035; EN: p 2 above applies); and a plurality of bi-directional linkages between said behavior expert systems wherein each behavior expert system has access to the internal states of other behavior expert systems within the plurality, forming a specific topology of linked behavior experts (**Zager**, p 0297).

Claim 32

Zager anticipates each behavior expert transforms its own internal states, according to a set of metric rules, based on the internal states within said behavior expert and one or more internal states of one or more other behavior experts within the plurality of behavior experts (**Zager**, p 0151, 0152).

Claim 33

Zager anticipates each behavior expert generates events, according to behavior rules, based on the internal states within said behavior expert and one or more internal states of one or more other behavior experts within the plurality (**Zager**, p 0151, 0152).

Claim 34

Zager anticipates each behavior expert operates at an independent execution frequency (**Zager**, p 0150; EN: at their discretion is synonymous with independent execution frequency).

Claim 35

Zager anticipates the topology of the linked behavior experts is altered, the bi-directional linkages between the behavior experts are changed dynamically (**Zager**, p

0244; EN: the agents are dynamic, have bi-directional linkages and it follows that linkages are altered and the topology therefore changes.

Claim 36

Zager anticipates the operation of the infrastructure component changes, select behavior experts within the plurality are dynamically instantiated or destroyed (**Zager**, p 0244).

Conclusion

13. The prior art of record and not relied upon is considered pertinent to applicant's disclosure.

- Carley et al, U.S. Patent 6,701,345
- Bowman-Amuah, U.S. Patent 6,697,824
- Rhoads, U.S. Patent 6,681,029
- Rhoads, U.S. Patent 6,647,128
- Herz et al, U.S. Patent 6,571,279
- Bowman-Amuah, U.S. Patent 6,556,659
- Busche, U.S. Patent 6,496,814

14. Claims 1-36 are rejected.

Correspondence Information

Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner, Joseph P. Hirl, whose telephone number is (703) 305-1668. The Examiner can be reached on Monday – Thursday from 6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Anil Khatri can be reached at (703) 305-0282.

Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

or faxed to:

(703) 746-7239 (for formal communications intended for entry);

or faxed to:

(703) 746-7290 (for informal or draft communications with notation of "Proposed" or "Draft" for the desk of the Examiner).

Hand-delivered responses should be brought to:

Receptionist, Crystal Park II

2121 Crystal Drive,

Arlington, Virginia.

Joseph P. Hirl

March 4, 2004